

**PROJECT DESCRIPTION**

**I. GENERAL**

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 117 AND FIRSTFIELD ROAD IN MONTGOMERY COUNTY. MD 117 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

**II. INTERSECTION OPERATION**

THE INTERSECTION OPERATES IN A NEMA SIX-PHASE, SEMI-TRAFFIC-ACTUATED MODE. THERE IS AN EXCLUSIVE LEFT TURN PHASE FOR BOTH THE EAST AND WEST APPROACHES OF MD 117. MD 117 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY AND FIRSTFIELD ROAD THROUGH MOVEMENTS WILL RUN CONSECUTIVELY. THERE IS A PEDESTRIAN PHASE FOR THE NORTH LEG ON THE INTERSECTION AND THERE IS ALTERNATE PEDESTRIAN PHASE FOR THE EAST LEG OF THE INTERSECTION.

**EQUIPMENT LIST FOR CONTRACT NO. XY2385185**

**A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION**

CATEGORY CODE	QUANTITY	UNIT	DESCRIPTION
900000	6	SF	SHEET ALUMINUM GROUND MOUNTED SIGN
	1	EA	R10-6 (24"X36")
900000	8	SF	SHEET ALUMINUM MAST ARMPOLE MOUNTED SIGN
	8	EA	R10-3(1) (9"X15")

**B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR**

CATEGORY ITEM	QUANTITY	UNIT	DESCRIPTION
100000	1	EA	MAINTENANCE OF TRAFFIC (PER INTERSECTION)
201032	11	CY	CLASS 2 EXCAVATION
203030	6	CY	TEST PIT EXCAVATION
585617	4	LF	5 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585621	530	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	135	SF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585627	42	LF	WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
585700	780	LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH
585605	42	SF	REMOVAL OF EXISTING PAVEMENT LETTERS, SYMBOLS, ARROWS AND NUMBERS
600000	280	LF	TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH
600000	40	LF	TYPE A CURB ANY HEIGHT OR DEPTH
655105	1730	SF	5 INCH CONCRETE SIDEWALK
655120	120	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
704345	32	SY	PLACING FURNISHED TOPSOIL 4 INCH DEPTH
708220	32	SY	TURFGRASS SOD ESTABLISHMENT
800000	1	EA	ADJUST HANDHOLE TO GRADE AND REPLACE FRAME AND COVER
800000	8	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
800000	6	EA	5 FOOT OR 10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLINGS, FOUNDATION & GROUND ROD
800000	6	EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	1	EA	REMOVE & DISPOSE OF EXISTING SIGNAL EQUIPMENT (PER SIGNALIZED INTERSECTION LOCATION)
800000	131	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
800000	14	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
800000	1	EA	THIRD PARTY CONCRETE TESTING (PER INTERSECTION)
802501	170	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
801130	1	EA	SQUARE PERFORATED TUBULAR STEEL SIGN POSTS
801135	1	EA	SQUARE TUBULAR STEEL ANCHOR BASES
861105	1790	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	1435	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

**C. EQUIPMENT TO BE REMOVED.**

ALL EXISTING SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL.

**CONTACTS**

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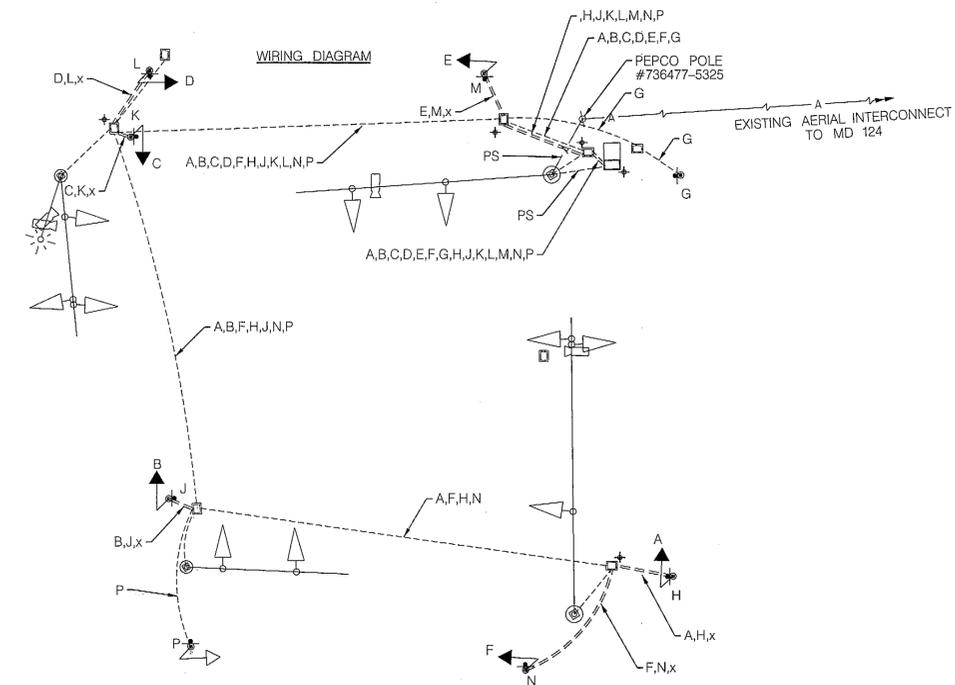
MD 117 ASSUMED TO RUN IN AN EAST/WEST DIRECTION

**WIRING KEY**

- A,B,C, } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- D,E,F, }
- G,H,J,K, } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- L,M,N,P, }
- + } EXISTING GROUND ROD
- PS } EXISTING POWER SERVICE
- x } GROUND WIRE

**PHASE CHART**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PHASE 1 AND 5	←G/R	←G/R	R	←G/R	←G/R	R	R	R/G	R	R/G	DW							
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6																		
PHASE 1 AND 6	←G/G	←G/G	G	R	R	R	R	R	R/G	R	DW							
1 AND 6 CHANGE	←Y/G	←Y/G	G	R	R	R	R	R	R/Y	R	DW							
PHASE 2 AND 5	R	R	R	←G/G	←G/G	G	R	R/G	R	R	DW							
2 AND 5 CHANGE	R	R	R	←Y/G	←Y/G	G	R	R/Y	R	R	DW							
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	DW							
PHASE 4 AND 8	R	R	R	R	R	R	G	G	G	G	DW							
4 AND 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW							
PHASE 4 ALT AND 8 ALT	R	R	R	R	R	R	G	G	G	G	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
4 ALT AND 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW							
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK							



MD 117 ASSUMED TO RUN IN AN EAST/WEST DIRECTION

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD ROUTE 117 (CLOPPER ROAD)  
AND FIRSTFIELD ROAD  
GAITHERSBURG, MD

**GENERAL INFORMATION PLAN SHEET**

SCALE NONE ADVERTISED DATE 08/2013 CONTRACT NO. XY2385185

DESIGNED BY DB COUNTY MONTGOMERY  
DRAWN BY DB LOGMILE 15017H.08  
CHECKED BY RM TMS NO. M055  
F.A.P. NO. TOD NO.

TS NO. 2028Z-G1 DRAWING SG-3 OF 3 SHEET NO. 3 OF 3

**BAI** BRUDIS & ASSOCIATES, INC.  
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PLOTTED: Wednesday, August 21, 2013 AT 05:05 PM  
FILE: P:\09-002 TEDD\Task 135 MD 117 Signals\Drawings\CADD\Working\8\_MD117@Firstfield RA\p5G-P003\_MD117@Firstfield.dgn

BY: fanyong